10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

JMJD1C Antibody

Catalog # ASC10968

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q15652
Other Accession	NP_116165, 118600981
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	284525
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	JMJD1C antibody can be used for detection of JMJD1C by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	221037
Other Names	Probable JmjC domain-containing histone demethylation protein 2C, 1.14.11.-, Jumonji domain-containing protein 1C, Thyroid receptor-interacting protein 8, TR-interacting protein 8, TRIP-8, JMJD1C, JHDM2C, KIAA1380, TRIP8
Target/Specificity	JMJD1C; This antibody will not cross-react with JMJD1A or JMJD1B.
Reconstitution & Storage	JMJD1C antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	JMJD1C Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	JMJD1C
Synonyms	JHDM2C, KIAA1380, TRIP8
Function	Probable histone demethylase that specifically demethylates 'Lys-9' of histone H3, thereby playing a central role in histone code. Demethylation of Lys residue generates formaldehyde and succinate. May be involved in hormone-dependent transcriptional activation, by participating in recruitment to androgen-receptor target genes (By similarity).

Cellular Location Nucleus.

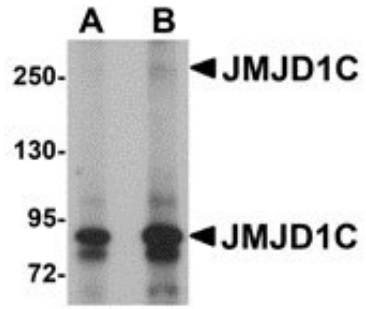
Background

JMJD1C Antibody: The jumonji domain containing 1C protein (JMJD1C) was initially discovered in silico, and later suggested to be a candidate gene for autism. Like the related proteins JMJD1A and JMJD1B, JMJD1C is a histone H3K9 demethylase implicated in the nuclear hormone receptor-based transcriptional regulation. JMJD1C mRNA is highly expressed in undifferentiated embryonic stem (ES) cells as well as pancreatic islet, diffuse-type gastric cancer, and other tissues and tumors. The JMJD1C gene promoter contain bHLH-, AP-1-, and POU5F1-binding sites, and as preferential expression of POU5F1 has been reported in ES cells, pancreatic islet, and diffuse-type gastric cancer, it has been suggested that POU5F1-mediated expression of JMJD1C reactivates previously silenced genes in ES cells and diffuse-type gastric cancer. At least three isoforms of JMJD1C are known to exist.

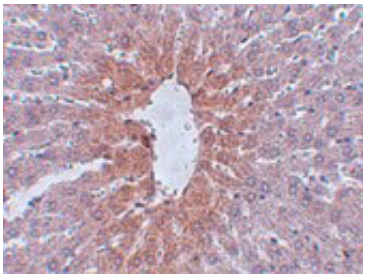
References

Katoh M and Katoh M. Identification of TRIP8 gene in silico. Int. J. Mol. Med.2003; 12:817-21.
Castermans D, Vermeesch JR, Fryns JP, et al. Identification and characterization of the TRIP8 and REEP3 genes on chromosome 10q21.3 as novel candidate genes for autism. Eur. J. Hum. Genet.2007; 15:422-31.
Katoh M and Katoh M. Comparative integromics on JMJD1C gene encoding histone demethylase: Conserved POU5F1 binding site elucidating mechanism of JMJD1C expression in undifferentiated ES cells and diffuse-type gastric cancer. Int. J. Oncology2007; 31:219-23.
Katoh Y and Katoh M. Conserved POU-binding site linked to SP1-binding site within FZD5 promoter: transcriptional mechanism of FZD5 in undifferentiated human ES cells, fetal liver/spleen, adult colon, pancreatic islet, and diffuse-type gastric cancer. Int. J. Oncol.2007; 30:751-5.

Images

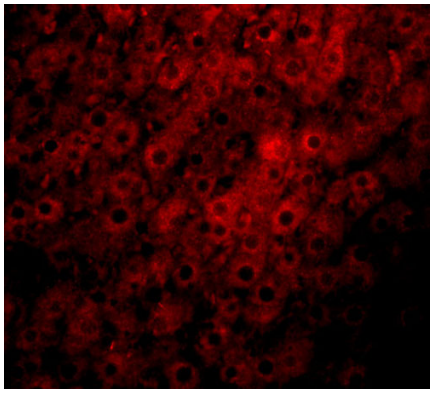


Western blot analysis of JMJD1C in human liver tissue lysate with JMJD1C antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of JMJD1C in rat liver tissue with JMJD1C antibody at 2.5 µg/mL.

Immunofluorescence of JMJD1C in rat liver tissue with JMJD1C antibody at 20 µg/mL.



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